Victor Lee & Associates Inc.
15105 John J. Delaney Drive
Suite D6
Charlotte, NC 28277

September 7, 2021

U.S. Department of Transportation, Docket Operations
West Building Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: **Victor Lee & Associates- Petition for an Amendment - Regulatory Docket No. FAA-2018-0183**

To Whom it May Concern:

Victor Lee & Associates is requesting an amendment to Exemption No. 18881 to conduct safe Aerial Photography/Videography operations with a UAS greater than 55 lbs..

The SHOTOVER CAMERA SYSTEMS U1 sUAS platform, provides a safe, efficient and economical means of obtaining creative visuals that would ordinarily be logistically impossible and in some instances hazardous to members of the public and structures using other camera platforms. The current exemption allows operations with the SHOTOVER U1 weighing over 55 pounds but no more than 88 pounds to conduct operations for aerial photography and videography. The UAS manufacturer, SHOTOVER has released an upgrade of the propulsion system to allow safe operations at a maximum take off weight of 132.2 pounds. The upgrade consists of increased propeller size from 27 inches to 30 inches and increased electric motor thrust capability from 142.99 Newton to 200.06 Newton per motor. The motor mounts are modified to support the extra lift capacity. 3 dimensional drawings are available in the revised Confidential and Proprietary Victor Lee & Associates Operations Manual attached.

The SHOTOVER U1 propulsion upgrade allows for larger photography and videography payloads while remaining within the SHOTOVER U1 operating envelope. The propulsion improvement increases the existing level of safety for those involved in the aerial operations. It is in the public's interest as the extra lift capacity allows sufficient headroom in the event of an emergency scenario to land the SHOTOVER U1 at the pre-planned designated landing zone.

In support of this Petition for an amendment to the maximum operating weight limit of the SHOTOVER U1 to 132.2 pounds, Victor Lee & Associates submit the following CONFIDENTIAL AND PROPRIETARY UAS operating documents:

- Revised Shotover U1 Operations Manual
- Revised Victor Lee & Associates Inc. Motion Picture & TV Operations Manual
- Detailed drawings with scale of the aircraft found in the Shotover U1 Operations Manual pages 83-85
- Operational limitations, restrictions, and warnings

UAS

The SHOTOVER U1 was developed with the ultimate goal of being the best UAS for aerial cinematography. For the past 5 years, the UAS has proven to be a safe system with multiple redundancies and safety systems.

The geofence is customizable depending on the operation location and safety requirements. The minimum recommended fence radius is 30m. The geo-fence is shaped like an invisible "virtual" boundaries made up of multiple circular and polygonal regions, which may be defined as either inclusion (fly within) or exclusion (fly outside) areas. The geo fence will stop the U1 from flying outside of the predetermined boundaries. The U1 will hover at the fence, land or initiate a Return to home depending on the operator's configuration. The operator of the U1 can configure the maximum distance, altitude and the U1 behavior once the geofence is reached.

The geofence feature will require a GPS lock before arming the U1 for flight. GPS status is monitor during the flight and if the GPS quality is reduced below the acceptable threshold, a landing sequence is initiated.

The size, weight, speed and limitations of the UAS are listed in the OM page 12.

This amendment request is similar in all respect to the Grant of Exemption given to Victor Lee & Associates Inc. Exemption No. 18881 with the exception of the new propulsion system allowing the maximum take-off weight of 132.2 pounds

UAS – Pilot-in-Command

The Pilot-in-Command must possess either a Commercial, Private, Recreational or Sport Pilot Certificate. Additionally, a valid vehicle U.S. driver's license and USA citizenship is required.

All operations require a Pilot-in-Command and a Visual Observer. In complex flight and production environments, a Camera Operator and a Telemetry Operator are required. The division of labor will maximize the safety, quality and efficiency of the operation. The qualifications and responsibilities of the Visual Observer and Telemetry/Payload Operator are outlined in the OM page 10.

The PIC must possess a current FAA airman medical certificate or a current U.S. issued driver's license and self-certify they are in sound mental and physical condition to pilot. The PIC would not engage in any operation, if there are medical issues that would prevent them from safely piloting.

OPERATION of UAS

Intended operations are described in the OM page 13.

We submit our revised, confidential and proprietary, VICTOR LEE & ASSOCIATES and SHOTOVER U1 - MOTION PICTURE & TV Operations Manuals as it clearly outlines operational procedures practiced by Victor Lee & Associates Inc. The standard operating practices we follow exceed the safety measures of hobbyists and enthusiasts who operate similar model aircraft that have the same weight, size, speed and operating parameters.

Safe operations as noted in the OM are assured by scheduled maintenance, operational risk assessment, preflight and post-flight checklists, incident recording, investigations, safety performance monitoring and safety audits.

In addition to these safety measures, the maximum altitude (AGL) required for our operation is 400 feet. Flights will only take place within the confines of a restricted-access location where only authorized personnel involved are permitted access, VLOS, day time only and with geo fencing, redundant flight control system and fail-safe return-to-home. Furthermore, aerial operations will never be conducted directly over people.

The safety procedures in case of an emergency such as Loss of Primary Control Frequency, Loss of Power to propulsion system, Aircraft battery failure, Transmitter battery failure, Malicious or accidental interference with primary control frequency, Pilot incapacitation, Aircraft incursion and "fly away action" are addressed in the OM pages 29-31.

Thank you in advance for your consideration.

Sincerely,

Victor Lee

Principal
Victor Lee & Associates Inc.